GUMNOVICOV, Vasiliy Georgiyevich; V. [illegible], A.V., red.

[Technology of the compression of wood and its application; from the work practices of the Kalinin Voronezh Plant] Tekhnologiia pressovaniia drevesiny i ee primenenie; iz opyta raboty Voronezhskogo zavoda im. Kalinina. Voronezh, Voronezhskoe knizhnoe izd-vo, 1961. 54 p. (MIA 17:10)

ZMAGA, P.I., inzh., red.; VOROB'YEV, S.A., kand.tekhn.nauk, red.; KUZUBOV, V.I., inzh., red.; LEONOV, A.Ye., dotsent, red.; MALYSH, Yu.I., inzh., red.; PUSTOVALOV, V.I., inzh., red.; SAVCHENKOV, V.A., kand. tekhn.nauk, red.; KHMARA, S.M., kand.tekhn.nauk, red.; DONSKOY, Ya.Ye., red.; LYALYUK, I.P., red.; SHEVCHENKO, M.G., tekhn.red.

[Advanced technology; collection of articles on the introduction of advanced technology in machinery plants of Kharkov] Progressivnaia tekhnologiia; sbornik statei ob opyte vnedreniia progressivnoi tekhnologii na khar'kovskikh mashinostroitel'nykh zavodakh. Khar'kov, Khar'kovskoe knizhnoe izd-vo, 1959. 297 p. (MIRA 13:1)

1. Politekhnicheskiy institut imeni Lenina (for Khmara).
(Kharkov--Machinery industry--Technological innovations)

PUSTOVALOV, V.I.; KRAVCHENKO, M.B.

Painting bicycle parts and units by the method of spraying paint in electric fields. Avt. i trakt. prom. no.12:40-42 D '57. (MIRA 11:1)

1. Khar'kovskiy velosipednyy zavod.
(Bicycles and tricycles--Painting)

MI NENKO, V.I., kandidat khimicheskikh nauk; TSARIKHIN, D.A., kandidat tekhnicheskikh nauk, dotsent; NECHIPORENKO, N.N., kandidat tekhnicheskikh nauk, dotsent; PUSTOVALOV, V.I., inzhener; SPRISHEVSKIY, A.I., kandidat tekhnicheskikh nauk.

Insulated hooks for electroplating machine-parts. Vest. mash. 36 no.8:62-63 '56. (MLRA 9:10)

1. Khar'kovskiy velosipednyy savod.
(Electroplating)

PUSTOVALOV, V.I.

MINENKO, V.I.; TSARIKHIN, D.A.; NECHIPORENKO, N.N.; PUSTOVALOV, V.I.; SPRISHEVSKIY, A.I.

Method of insulating suspension devices for galvanizing parts. Avt.trakt.prom. no.10:29 O '54. (MLRA 7:10)

1. Khar'kovskiy velosipednyy zavod.
(Galvanizing)

L 11072-63 EWP(q)/EWT(m)/BDS--AFFTC/ASD--JD

ACCESSION NR: AP3001377 S/0148/63/000/005/0129/0135 60 59

AUTHOR: Astakhov, I. G.; Krupin, A. V.; Fedosov, N. M.; Shilkov, V. B.; Pustovalov, U. V.; Kontsevaya, Ye. M.

TITLE: Specific pressure during cold rolling of alloy E1602 and steel E1962

SOURCE: IVUZ. Chernaya metallurgiya, no. 5, 1963, 129-135

TOPIC TAGS: cold rolling, austenite (E1602), martensite (E1962), deformation, gage of flat product, lubrication characteristics, hardening temperature, cogging, yield strength, relative elongation

ABSTRACT: The change in specific pressure of austenite (E1602) and martensite (E1962) steel during cold rolling are examined as a function of deformation, gage of flat product, and lubrication characteristics. The influence of hardening temperature on cogging characteristics are studied at various specific pressures, and as a function of yield strength and relative elongation. Traditional rolling production practice and theory was confirmed quantitatively in measurements of change of specific pressure during cold rolling in relation to gage of flat product. Orig. art. has: 2 tables, 7 figures, and 4 references.

Moscow Inst. of Steel and Alloys.

Card 1/2

PUSTOVALOV, V.

"Air motorcycle". Znan.sila 31 no.1:24a Ja '56. (MLRA 9:4)
(Helicopters)

Histology, V. 2

The determination of higher fatty acids by the method of unidimensional paper chromatography. V. L. Pustovalov (State Med. Inst., Rostov-on-Don). *Biokhimiya* 20, 730–3 (1955).—Hydrophobic filter paper was prepd. as follows: Filter paper was treated with a benzene soln. (I) of 0.4% caoutchouc (II) and 6% naphthalene (III). This soln. was prepd. by mixing 4 vols. of 0.5% soln. of raw II in I with 1 vol. of 30% soln. of III in I. The mixt. can be stored at room temp. indefinitely. Filter paper strips 18 × 40 cm. were drawn through this soln. 3 times and air-dried for 10 min.; 2 cm. long pieces were then cut off at each end and a drop of the substance to be chromatographed was applied 7–8 cm. from the cut off end. Drops of the substances were deposited 1.5–2.0 cm. apart. Ethanol solns. of the substances to be analyzed were prepd. of concns. such that from 40 to 50 γ of each component was contained in a drop. The ascending type of chromatography was used only. The deposited drops of the mixts. to be tested having been dried, the paper strips were suspended off hooks in a cylindrical chromatographic chamber, allowing the lower ends of the strips to be immersed up to 1 cm. in the migrating solvent.

1 / Anal Biochemistry

1/2

(OVER)

Strips were thus kept for 9–12 hrs. at 20–2°, during which time the spots migrated upward 20–25 cm. from the original point of deposition. The paper strips were then removed, and dried in a special chamber at room temp. For the development of the spots use was made of 0.3% soln. of bromothymol blue in 50% EtOH at pH 8.0–8.3. A specially devised roller-type app. for the application of the developer to the filter paper is described. Some worthwhile advantages are claimed for it. If upon prolonged storing developed spots fade, they can be redeveloped as originally. Ethanol in concns. of 90, 85, 80, and 75% was used as the migration vehicle. A table of quadruple R_f values is presented for the following fatty acids: capric, lauric, myristic, palmitic, stearic, palmitoleic, oleic, and linoleic. Such a procedure for obtaining and recording quadruple R_f values for each component of mixts. under study has the decided advantage of presenting a more complex yet more highly specific and more easily differentiated R_f pattern. Hydroxamic derivs. of fatty acids can be just as conveniently and easily sepd. and identified by the chromatographic method.

B. S. Levine

2/2

PUSTOVALOV, V. L.

2265. Higher fatty acids of diphtheria bacilli. V. L. Pustovalov *Biokhimiia*, 1956, 21, 38—49 (A. N. Bakh Inst., Moscow, U.S.S.R.).—60 g. of lipids obtained from 3 kg. of dry diphtheria bacilli (PW 8 strain) gave on saponification 20·6 g. of higher fatty acids (m.p. 50—53°), the neutralisation no. being 138·5 and iodine no. 30·4. Further separation (fractional distillation, crystallisation and paper chromatography) demonstrated the presence of palmitoleic, corynomycolic, and some octadecenic and eicosenoic acids. Some unsaturated hydroxy acids (31—32 carbon atoms) and unidentified higher fatty acids are also present. (Russian)

A. K. Grzybowski

PUSTOVALOV, V.L.

A spectrophotometric study of BCG bacilli and diphtheria bacteria. E. M. Gubarev and V. L. Pustovalov (Med. Inst., Rostov-on-Don). *Biokhimiya* 21, 203–4(1956).—A study was made of light absorption in the ultraviolet region of the spectrum by the lipides of BCG bacilli. The microorganisms were grown for 17–18 days in a glycine medium. The bacterial mass was then collected, washed with physiol. saline and dried. The resulting 152.2 g. of the dry culture was extd. with boiling $CHCl_3$, filtered, dried on a steam bath and *in vacuo* at 10 mm. Hg at 60–70° for 48 hrs. A brown mass (22.2 g.) was obtained having a neutralization point of 69.1, saponification no. 169.1, and I_2 no. 23.0. The diphtheria bacteria were grown for 10–12 days in meat-peptone-bouillon, separated from the medium, filter-washed with physiol. saline, autoclaved, and dried at 100°. The resulting 60.06 g. of the bacteria mass was ground to a powder and extd. successively with three portions of boiling benzene. The resulting lipide ext. was dried *in vacuo*, after which it appeared as a hard brown mass having a neutralization point of 32.1, saponification no. 89.1 and I_2 no. 19.9. The bacterial residue was then extd. several times with boiling $CHCl_3$ and thoroughly dried *in vacuo*. The extd. grease-like substance had a neutralization point of 86.0, saponification no. 234.8, and I_2 no. 26.6. Thus, the benzene extn. of the cells yielded 4.99 g. or 8.3% of lipides, and the succeeding $CHCl_3$ extn. 10.22 or 0.3% of lipides, the total free lipides being 5.21 g. or 8.6% of the wt. of the air-dried mass. For the quartz spectrophotometric detns. isooctane was used as the solvent. It was first purified by passing through a silicogel column and redistilled over dry KOH in a rectifying column. The lipides were used in a 0.1% soln. at 20°, thickness of layer 10.00 mm. Two

2

1/2

GUBAREV, E.M., PUSTOVALOV, V.L...

absorption curves were obtained, one from the diphtherial lipide light absorption and one from the BCG lipide light absorption. Max. absorption of the diptherial lipide was 220 mμ, of the BCG lipide 215 mμ. The absorptions may have been due to the presence in the lipides of carbonyl groups of the higher fatty acids. It is to be noted that the index of light absorption increased with the increase in the neutralization no. of the lipide, i.e. with the increase in the no. of fatty acids in the lipides. The presence of a slight absorption in the vicinity of 320 mμ points to the presence of keto groups in the lipides of the BCG bacilli. B. S. I. 2/2

ROZHKOV, A.A.; KANCHUKH, A.A.; ZAV'YALOVA, N.K.; PUSTOVALOV, V.L.

Production and properties of cephalosporin. Report No.1: Morphological charateristics and culture properties of the fungus Cephalosporium. Antibiotiki 4 no.6:13-18 N-D '59. (MIRA 13:3)

1. Rostovskiy-na-Donu nauchno-issledovatel'skiy protivochumnyy institut.
(ANTIBIOTICS chem.)

ROZHKOV, A.A.; KANCHUKH, A.A.; ZAV'YALOVA, N.K.; PUSTOVALOV, V.L.

Separation, purification, and antibacterial properties of cephalosporin. Antibiotiki 5 no.1:9-14 Ja-F '60. (MIRA 13:7)

1. Rostovskiy-na-Donu nauchno-issledovatel'skiy protivochumnyy institut.

(CEPHALOSPORIN)

PUSTOVALOV, V. L., URALEVA, V. S., and YAGUPYA TS, I. M. (USSR)

"The Isolation and Properties of Allergenic Polysaccharide Fractions from Brucella abortus 19."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

ACC NR: AT7003558 (N) SOURCE CODE: UR/3240/66/000/001/0027/0033

AUTHORS: Kapinos, V. M.; Pustovalov, V. N.

ORG: Kharkov Polytechnic Institute (Khar'kovskiy politekhnicheskiy institut)

TITLE: Built-in alpha-calorimeter for the determination of heat transfer coefficients at elevated temperatures

SOURCE: Kharkov. Politekhnicheskiy institut. Energeticheskoye mashinostroyeniye, no. 1, 1966. Teploobmen i gazodinamika (Heat transfer and gas dynamics), 27-33

TOPIC TAGS: calorimeter, calorimetry, heat transfer, heat transfer coefficient

ABSTRACT: A general discussion of the theory and application of built-in alpha-calorimeters is presented. An alpha-calorimeter specifically designed for determining heat transfer coefficients at high temperatures is described and its schematic is presented. The performance of the calorimeter was evaluated after the method of V. M. Kapinos and N. N. Nikitenko (Teploenergetika, 1963, No. 8). The experimental data can be represented by the equation

$$Nu_f = 0{,}032\,Re_f^{0.8},$$

and are graphically compared with the exact dependence in Fig. 1. The authors conclude that the calorimeter is suitable for determining heat transfer coefficients at elevated temperatures.

Card 1/2

ACC NR: AT7003558

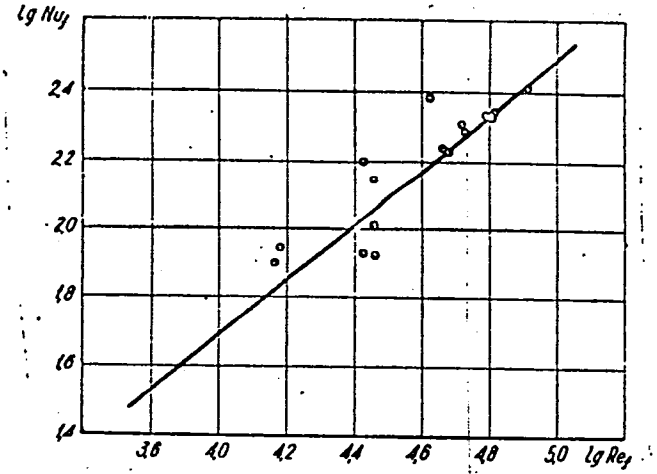

Fig. 1. Comparison of experimental data with the exact dependence $Nu_f = f(Re_f)$

Orig. art. has: 4 graphs and 16 equations.

SUB CODE: 14/ SUBM DATE: none/ ORIG REF: 020/ OTH REF: 003

Card 2/2

KAPINOS, V.M., kand. tekhn. nauk; BUBLIKOV, Ye.I., kand. tekhn. nauk; MATSEVITNYY, Yu.M., inzh.; GOLOSHCHAPOV, V.N., inzh.; PUSTOVALOV, V.N., inzh.

Temperature distribution in the rotor and internal cylinder of a cooled steam turbine. Teploenergetika 11 no.7:32-37 Jl '64. (MIRA 17:8)

1. Khar'kovskiy politekhnicheskiy institut im. V.I. Lenina.

SEDACH, V.S., kand.tekhn.nauk; PUSTOVALOV, V.N., inzh.; SHCHEKALKIN, V.M., inzh.

Expenditure coefficients of the dosing outlets of the steam cooling channel of the SKR 100 turbine. Energomashinostroenie. 11 no.2:37-39 F '65. (MIRA 18:4)

PUSTOVALOV, V.V.

Investigation of porous refractory materials with the aid of an electron microscope. Zav.lab.21 no.12:1483-1485 '55.(MLRA 9:4)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut ogneuporov.
(Microscopy) (Refractory materials)

PUSTOVALOV, V.V.

32-9-19/43

AUTHOR: Pustovalov, V.V.

TITLE: A Method for the Measuring of the Heat Conductivity Coefficient of Refractories at High Temperatures (Metodika izmereniya koeffitsiyenta teploprovodnosti ogneuporov pri vysokikh temperaturakh)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 9, pp. 1093-1094 (USSR)

ABSTRACT: The author developed a device for the determination of the heat conductivity coefficient of refractories at 1500°. The device is based upon the method of a cylindrical shell (Adams, M., J.Am. Ceram-Soc., 37, 2, 74-79, 1954) which warrants sufficient measuring accuracy and small dimensions of the apparatus. Owing to the lack of platinum-rhodium heaters a carborundum rod was used. The apparatus is described and the formula for the computation of the heat conductivity coefficient is given. The essential characteristic feature of the apparatus is the degree of heat dispersion transversally to the direction of the heat currents. Experiments showed that transversal heat losses did not exceed 2% in the case of the various investigations. A comparison of the measuring results of heat conductivity obtained with magnesite-chromium samples with those obtained for similar substances by A.F. Kolechkova and V.V.Goncharov ("Ogneupory", Nr 1, 1955) showed that the maximum differences at

Card 1/2

A Method for the Measuring of the Heat Conductivity Coefficient of Refractories at High Temperatures

high temperatures are within range of the measuring errors of both methods. A comparison of results obtained by the absolute and by the relative method showed good agreement. There are 2 figures and 2 Slavic references.

ASSOCIATION: All-Union Scientific Research Institute for Refractories (Vsesoyuznyy nauchno-issledovatel'skiy institut ogneuporov)

AVAILABLE: Library of Congress

PUSTOVALOV, V. V.

32-9-38/43

AUTHOR: Kovalenko, S.I., Pustovalov, V.V. (1), Zheretiyenko, V.K.(2), Burlakov, V.S. (3), Drobyazko, T.T. (4), Ur'yash, F.V. (5)

TITLE: Short Reports (Korotkiye soobshcheniya)

PERIODICAL: Zavodskaya Laboratoriya, 1957, Vol. 23, Nr 9, pp.1135-1137 (USSR)

ABSTRACT: re.(1): The authors developed a method for the production of spliced in graphite heaters for high temperature furnaces. On the exterior surface of the working part a spiral was turned out (on a lathe). The tapped part may take up about half of the thickness of the wall of the tube. It is possible to attain a temperature of 2000-2500° at 800-900 A and 13-15 C. There is 1 figure.

re.(2): The author introduced an electron device for the determination of short-circuited windings in transformer spirals. By means of this device it is possible even to detect a short-circuited winding of any diameter. There is 1 figure.

re.(3): The author reports that the "Laborpribor" plant (Klin, district of Moscow) produces devices for the testing of constructional and protective materials in form of large plates in aggressive media. The device is described. There is 1 figure.

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Short Reports

re.(4): The author developed the construction of a bench for the cutting of metal by means of a separating disk. The disk has a diameter of 300 mm and a thickness of 3 mm. It is connected with an electromotor (2.8 kW, 2880 revs/min) by means of a cone belt.

re.(5): The author uses a suspension for the ballistic galvanometer. It prevents the influence exercised by exterior impacts upon the mobile system of the apparatus. The suspension is an oscillation system with long dying-out time. There is 1 figure.

ASSOCIATION: All-Union Institute for Refractories (Vsesoyuznyy institut ogneuporov) (1)
Electrotechnical Plant of Saratov (Saratovskiy elektrotekhnicheskiy zavod) (2)
Metallurgical Combine of Kuznetsk (Kuznetskiy metallurgicheskiy kombinat) (4)
Metallurgical Plant of Gor'kiy (Gor'kovskiy metallurgicheskiy zavod) (5)

AVAILABLE: Library of Congress

Card 2/2

AUTHOR: Pustovalov, V.V. SOV/131-58-7-3/14

TITLE: The Thermal Conductivity of Refractory Magnesium Products (Teploprovodnost' magnezial'nykh ogneuporov)

PERIODICAL: Ogneupory, 1958, Nr 7, pp 326 - 328 (USSR)

ABSTRACT: This investigation deals with the study of the temperature dependence of the thermal conductivity of refractory magnesite-chromite products of a chromite content of from 1.8 to 30%. The measurements were carried out by means of the apparatus VNIIO-56 which had been developed by the VNIIO physical laboratory. Furthermore, the production of experimental samples is described in detail. 5 kinds of refractory magnesite-chromite products were investigated. Some of their properties are mentioned in table 1. The results of the determinations are represented in the figure. In table 2 the thermal conductivity of refractory magnesium products as taken from the average curves are mentioned. As may be seen from them, the products with a higher magnesite content and less porosity show the highest thermal conductivity, and the products with

Card 1/2

The Thermal Conductivity of Refractory Magnesium Products SOV/131-58-7-9/14

greater porosity and a smaller content of magnesite show the lowest one. As the results were obtained by a comparative method, a more accurate comparison is difficult. There are 1 figure ; 2 tables, and 4 Soviet references

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut ogneuporov (All-Union Scientific Research Institute of Refractories)

1. Ceramic materials--Temperature factors 2. Ceramic materials --Production 3. Ceramic materials--Test methods 4. Magnetite compounds--Application

Card 2/2

15(2)

AUTHOR: Pustovalov, V. V. SOV/131-59-4-10/16

TITLE: Determination of the Thermal Conductivity of Refractories up to 1200° by the Method of Steady Heat Flow (Opredeleniye teploprovodnosti ogneuporov do 1200° metodom statsionarnogo teplovogo potoka)

PERIODICAL: Ogneupory, 1959, Nr 4, pp 180-185 (USSR)

ABSTRACT: In the present paper the author describes a device for the absolute determination of the coefficient of thermal conductivity by means of the steady method and the determination method by means of this apparatus. The determination results of the thermal conductivity of some refractories in the temperature range of 100 - 1200° are also given. The apparatus of the Ukrainian and All-Union Institutes of Refractories did not permit measurements in vacuum. The author chose the method of the cylindrical test rod. The construction of the device is shown in figure 1 and then described in detail. The test rod may be seen in figure 2. The experiment was carried out by means of an LATR-1 autotransformer and is described in detail. The heat-transfer coefficient is computed by the

Card 1/3

Determination of the Thermal Conductivity of Refractories up to 1200° by the Method of Steady Heat Flow

SOV/131-59-4-10/16

formula $\lambda = \frac{\ln \frac{r_1}{r_2}}{2\pi l} \cdot \frac{0.24\ IV}{t_2 - t_1}$, where t_2 denotes the temperature on the hot side of the test rod, t_1 that on the "cold" side, I the current intensity of the heater, V the voltage drop on the section of the length l determined. The characteristic features of the test rods investigated are given in table 1 and the values of the coefficient of thermal conductivity in table 2. These coefficients of two kinds of magnesite bricks were determined: 1) of the ordinary form of the plant "Magnezit" and 2) of an especially dense one of the test plant UNIIO (Fig 3). For comparison table 3 presents the heat-transfer coefficients which were obtained and published by various scientists. Figure 4 illustrates the dependence of these coefficients of a light fire-clay brick on temperature. A light dinas brick was investigated in the temperature range 100 - 900° and its coefficient of thermal conductivity was determined 1) in the air and 2) in vacuum. There are 5 figures,

Card 2/3

Determination of the Thermal Conductivity of Refractories up to 1200° by the Method of Steady Heat Flow

SOV/131-59-4-10/16

3 tables, and 10 references, 8 of which are Soviet.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Refractories)

Card 3/3

S/081/61/000/006/009/015
B101/B201

15 2630

AUTHOR: Pustovalov, V. V.

TITLE: Measurement of the thermal conductivity of refractories up to 2000°C

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1961, 560. Abstract 6K234 ("Sb. nauchn. tr. Ukr. n.-i. in-t ogneuporov", 1960, vyp. 3(59), 282 - 290)

TEXT: Results of the measurement of the heat conduction coefficient of a number of refractories between 700 and 1700°C on the hot side are given, as well as a characteristic of the apparatus serving to determine the thermal conductivity, a calculation method, and an analysis of results obtained. Abstracter's note: Complete transl. text.

B

Card 1/1

S/072/60/000/05/09/027
B015/B008

AUTHOR: Pustovalov, V. V.

TITLE: Change in the Thermal Conductivity of Quartz Glass During the Crystallization Process

PERIODICAL: Steklo i keramika, 1960, No. 5, pp. 28-30

TEXT: In the paper under review the author investigates the influence of the degree of crystallization on the thermal conductivity of quartz glass. T. G. Kazanskaya participated in the experimental work. A quartz-glass cylinder with an outer diameter of 75 mm, inner diameter of 20 mm, and a height of 90 mm served as a sample for the determination of thermal conductivity. Heating was carried out in a cryptol furnace at temperatures of 1400°, 1500°, and 1600°, petrographic and X-ray analyses being made after each heating. The average values of thermal conductivity dependent on temperature and heating time are indicated in table 1 and Fig. 1. The amount of christobalite and the changes in the fine structure during the crystallization process were controlled petrographically by the petrographer Z. D. Zhukova (Table 2) and according to the intensity of the christobalite curves (Fig. 2). The change in thermal

Card 1/2

Change in the Thermal Conductivity of Quartz Glass During the Crystallization Process

S/072/60/000/05/09/027
B015/B008

conductivity of the original quartz glass at an increase in temperature can be seen from Fig. 3. The change in thermal conductivity due to crystallization of christobalite in quartz glass can be divided into 2 phases: a) up to a christobalite content of 27%, and b) up to one of 97%. There are 3 figures and 2 tables.

Card 2/2

34262

24.5200
17.4311

S/170/60/003/010/007/023
B019/B054

AUTHOR: Pustovalov, V. V.

TITLE: The Influence of the Degree of Evacuation on the Effective Heat Conductivity of Fireproof Ceramics

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1960, Vol. 3, No. 10, pp. 57 - 59

TEXT: The author studied the temperature dependence of the heat conductivity of various fireproof materials in vacuo. He investigated forsterite, Dinas bricks, and magnesite of differing porosity. The measuring instrument previously described by the author (Ref. 1) was placed into a vacuum chamber. The results shown in Fig. 1 for the three materials investigated reveal that heat conductivity is reduced in the pressure range in which the mean free path of the air particles attains the dimension of the mean pore diameter. The heat conductivity of ceramics increases again in the temperature ranges in which the contribution of radiation to heat conduction becomes greater. T. G. Kazanskaya assisted in the investigation. There are 1 figure and 2 Soviet references.

Card 1/2

84262

The Influence of the Degree of Evacuation on the Effective Heat Conductivity of Fireproof Ceramics

S/170/60/003/010/007/023
B019/B054

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov, g. Khar'kov (Ukrainian Scientific Research Institute of Fireproof Materials, Khar'kov)

SUBMITTED: March 2, 1960

X

Card 2/2

S/893/61/000/005/005/005
B117/B186

AUTHOR: Pustovalov, V. V.

TITLE: Determination of the thermal conductivity of refractories in vacuo at high temperatures (up to 2400°C)

SOURCE: Kharkov. Ukrayins'kyi naukovodoslidchyi instytut vohnetryviv. Sbornik nauchnykh trudov, no. 5(52), 1961, 324-335

TEXT: The thermal conductivity of refractories was determined at temperatures up to 1700°C in vacuo at a steady heat flow, by means of a device with a heating wire operating according to the principle of a hollow cylinder. Specimens with a thermal conductivity higher than 20 kcal/m·hr·degree could be heated with heating wires only up to 1400°C. A new instrument, developed at the fizicheskaya laboratoriya UNIIO (Physics Laboratory of the UNIIO) is used for studying the thermal conductivity of such substances in vacuo at temperatures up to 2400°C. The casing of this instrument is a parallelopiped constructed of angle irons, which supports a copper bus bar on an asbestos-cement-interlayer

Card 1/3

on the upper and lower parts of the frame. A steel support is fitted to the lower part of the frame, onto which a molybdenum cylinder with the specimen is mounted. The heater, a graphite tube or tungsten rod, is placed between an electrode fastened to the upper bus bar and a freely suspended electrode which consists of copper busses with screwed in graphite contacts. The current is supplied by the feeder over massive vacuum leads, which are connected to busses by a copper foil. The instrument, surrounded by two iron screens in the casing, is placed inside a chamber evacuated by means of a vacuum and a vapor-oil diffusion pump. This instrument was used to determine the thermal conductivity of refractories in vacuo ($1 \cdot 10^{-4}$ mm Hg) at temperatures up to 2400°C on the heated side of the specimen and at 2000° in a nitrogen medium. The graphite heaters are shown to produce very high temperatures and to be very stable. At high temperatures, however, they evaporate strongly, they contaminate the specimen and they react with certain materials to form carbides. The specimens are less contaminated by heaters of tungsten as these react with the material of the specimen only slightly. The small cross sections of the tungsten rods (1/10 of the cross section of the graphite tubes) make it possible to reduce the inner and the outer

diameter of the column under investigation and to reduce the heat losses along the heater. The electrical resistance of the tungsten rods, which is half that of graphite heaters, causes certain difficulties in the achievement of a high output. The following conclusions were drawn on the basis of comparing the results obtained with the three types of heaters: the thermal conductivity of ZrO_2, Al_2O_3 and other refractories of similar thermal properties can be easily and accurately determined with heating wires in vacuo at temperatures up to 1700°C. For substances with a thermal conductivity above 10 kcal/m·hr·degree it is recommended that the instrument developed should be provided with massive graphite or tungsten heaters for use at high temperatures up to 2400°C. There are 10 figures and 3 tables.

Card 3/3

S/131/61/000/007/002/003
B105/B206

152630

AUTHOR: Pustovalov, V.V.

TITLE: Thermal conductivity of some refractory materials

PERIODICAL: Ogneupory, no. 7, 1961, 302-305

TEXT: The author describes the determination of the thermal conductivity of various refractory materials. T.G. Kazanskaya participated in the experimental work. Besides the composition of various refractory products, their apparent porosity in percent and weight of unit volume in g/cm^3 are mentioned. Samples and some data on their properties were obtained by the author from A.A. Pirogov and V.D. Tsigler. Table 2 shows the thermal conductivity of some refractory materials in kcal/min.hr.deg and Fig.1 the thermal conductivity of refractory products with high SiO_2 content. The thermal conductivities (λ) of the following products as a function of their temperatures are also shown: highly aluminous samples; refractory forsterite products; ZrO_2 (IX) and light zirconium products; light chromium magnesite products. The thermal conductivity λ of refractory products with

Thermal conductivity of ...

high SiO_2 content rises almost linearly with the increase of temperature, with the exception of quartz glass, in which the dependence of the thermal conductivity on the temperature takes a linear course only in the range from 100-400°C. The thermal conductivity of light zirconium products and other zirconium products drops at a temperature increase, but the drop is insignificant in the range from 800-1000°C. The thermal conductivity of light chromium magnesite products increases, linearly with the temperature rise, from 0.44 kcal/min.hr.deg at t_{mean} = 100°C up to 0.77 kcal/min.hr.deg at t_{mean} = 1300°C. There are 5 figures, 2 tables, and 6 references: 3 Soviet-bloc and 3 non-Soviet-bloc. The reference to English-language publications reads as follows: Journ. Amer. Cer. Soc., 1954, v. 37, No. 2, p. 11.

ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Refractories)

26215
S/131/61/000/008/001/002
B105/B206

15 2630

AUTHOR: Pastovalov, V. V.

TITLE: Heat conductivity of refractory aluminosilicate products

PERIODICAL: Ogneupory, no. 8, 1961, 362 - 366

TEXT: The author determined the heat-transfer coefficients (λ) of refractory aluminosilicate products in air and hydrogen at atmospheric pressure and in a high vacuum. Measurements were made with a device for the absolute determination of the heat-transfer coefficient of refractory products, which was placed in a vacuum chamber. T. G. Kazanskaya participated in the experimental part of the study. Specimens and some indices were obtained from A. I. Royzen. A number of aluminosilicate materials with different Al_2O_3 content were measured for the determination of the heat-transfer coefficient λ in air medium at a pressure of 1 kg/cm^2. The temperature dependence of λ the temperature was shown and also determined in vacuo. Table 3 shows the heat-transfer coefficients of refractory aluminosilicate products in air medium at a pressure of $1 \cdot 10^{-4}$ mm Hg,

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Heat conductivity of ...

kcal/m • h • deg, and Table 4 those in hydrogen medium at a pressure of 1 kg/cm^2, kcal/m • h • deg. The results of measurements in hydrogen are finally compared in qualitative respect with data of publications. The available theoretical formulas agree with experimental data on refractory products of open porosity. For materials with closed pores (to which all treated materials belong, except the highly aluminous light products), the formulas are only suitable for pressures above the atmospheric one. The theoretical formulas by Leb, Ribo, Rassel (Russel), and Eyken, as well as the primitive additivity formula used by the author do not sufficiently consider the real structure of refractory products and the heat-transfer processes. There are 3 figures, 4 tables, and 5 references: 3 Soviet-bloc and 2 non-Soviet-bloc.

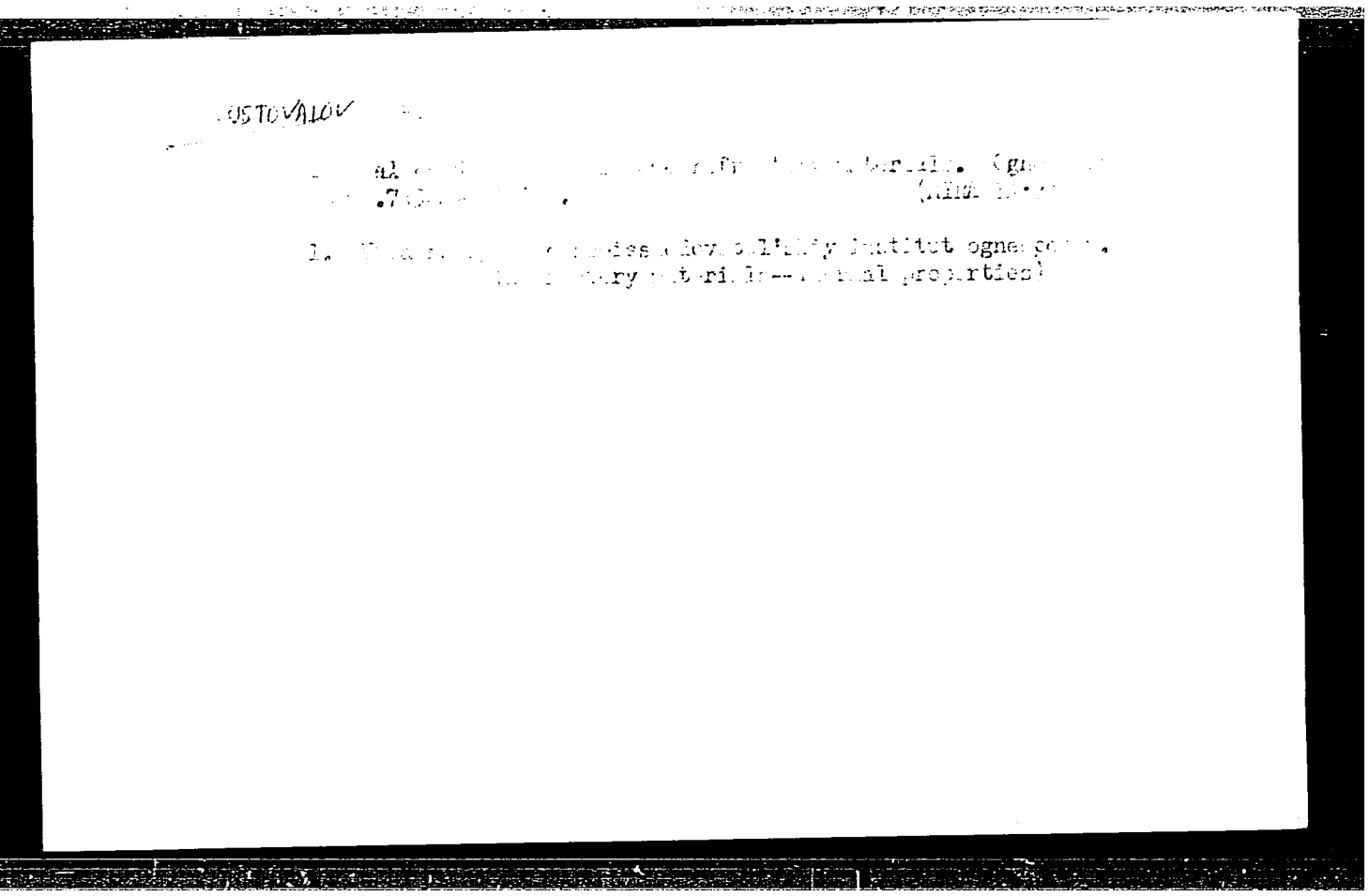
ASSOCIATION: Ukrainskiy nauchno-issledovatel'skiy institut ogneuporov (Ukrainian Scientific Research Institute of Refractories)

Card 2/3

PUSTOVALOV, V.V.

Thermal conductivity of refractory powders and baked ceramics. Stek. i ker. 18 no.12:17-19 D '61. (MIRA 16:8)

(Refractory materials—Thermal properties)
(Ceramics—Thermal properties)



31181
S/072/61/000/012/002/003
B105/B110

15 2630

AUTHOR: Pustovalov, V. V

TITLE: Thermal conductivity of refractory powders and sintered ceramics

PERIODICAL: Steklo i keramika, no. 12, 1961, 17-19

TEXT: By measuring the thermal conductivity of powders and specimens sintered from them, the effect of thermal contacts developed through sintering on the heat transfer of refractory ceramics can be determined qualitatively. In addition to this effect, the influence of the grain size was investigated. The investigations were conducted at 200 - 1200°C with powders from spinel, forsterite, and zirconium dioxide of three fractions: 2 - 5 mm; 1 - 0.2 mm; below 0.2 mm. The temperature dependence of the thermal conductivity of ceramic specimens, pressed from powders of the 1 - 0.2 mm fraction and fired at 1650°C, was determined for comparison. Powders and ceramic specimens were supplied by A. A. Pirogov. The effective thermal conductivity of forsterite powder at 100°C is

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S/072/61/000/012/002/003
B105/B110

Thermal conductivity of refractory powders ...

0.16 kcal/m·hr·deg and that of specimens sintered from this powder reaches 1.38 kcal/m·hr·deg. Between 100 and 400°C, the thermal-conductivity curves of the powders were found to vary only slightly and to be parallel to that of air. Above 400°C, the thermal conductivity of coarse powders was higher than that of finer ones. Therefore, the heat transfer at high temperatures is assumed to be caused mainly by radiation in the cavities between the grains. It is concluded that finely porous ceramics should be preferred to coarsely porous material for the heat insulation of thermal units with high temperatures where radiative heat transfer is predominant. T. G. Kazanskaya participated in the experiments. There are 4 figures and 4 references: 2 Soviet and 2 non-Soviet. The two references to English-language publications read as follows: J. Amer. Cer. Soc., v. 35, no. 2, part II, 1954; W. D. Kingery, J. Amer. Cer. Soc., v. 38, no. 7, 1955.

Card 2/2

L 15310-65 EWT(l)/EWG(k)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EEC(b)-2/EWA(m)-2
Pz-6/Po-4/Pab-10/Pi-4 IJP(c)/SSD(b)/BSD/AFWL/AEDC(b)/SSD/ASD(p)-3/AFETR/
RAEM(a)/ESD(gs)/ESD(t) AT
ACCESSION NR: AP4047911 S/0056/64/047/004/1437/1453

AUTHORS: Gorbunov, L. M.; Pustovalov, V. V.; Silin, V. P.

TITLE: Nonlinear interaction of electromagnetic waves in a plasma

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 47, no. 4, 1964, 1437-1453

TOPIC TAGS: plasma wave propagation, plasma electromagnetic wave, plasma oscillation, nonlinear plasma

ABSTRACT: The theory developed is based on the equations of nonlinear electrodynamics, the statistical averaging of which yields a nonlinear equation for the evolution of electromagnetic-field fluctuations. Principal attention is paid to the interaction of long transverse waves with either transverse or longitudinal waves. The approach is similar to that used in an earlier paper by Gorbunov and Silin (Preprint FIAN, A-8, 1964; ZhETF v. 47, 203, 1964), ex-

Cp/3

cept that in addition to taking into account the Coulomb interaction of the plasma particles, the authors determine, in the present work, first, the role played by the formation of transverse waves through coalescence of longitudinal waves, and second, the conditions under which the nonlinear interaction is determined by the intermediate transverse wave. The interaction between long transverse and longitudinal Langmuir waves in a plasma is then considered and the conditions under which scattering of the oscillations by the ions predominates determined. It is shown that this scattering exceeds by several orders of magnitude the interaction between the oscillations and electrons. The conditions under which the time of transformation of the oscillations is determined by the interactions with the electrons, characterized by the intermediate transverse waves, are ascertained. This is followed by an examination of the merging of a longitudinal and long transverse wave to form a transverse wave, and by a study of induced scattering of longitudinal waves. It is shown that in this case an important role is played by the interaction

L 15310-65
ACCESSION NR: AP4047911

with the intermediate transverse wave. The latter effect was not observed before because the analysis was either confined to the scattering by longitudinal plasma fluctuations, or to short wavelengths. Orig. art. has: 57 formulas.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute, Academy of Sciences SSSR)

SUBMITTED: 13Apr64 ENCL: 00

SUB CODE: ME NR REF SOV: 018 OTHER: 002

Card 3/3

L 63114-65 EWT(1)/EPF(n)-2/EWG(m)/EPA(w)-2 IJP(c) AT

ACCESSION NR: AP5020358 UR/0141/65/008/003/0461/0468
621.371.18

39
38
B

AUTHOR: Gorbunov, L. M.; Pustovalov, V. V.; Silin, V. P.

TITLE: Scattering of electromagnetic waves in a plasma 21

SOURCE: IVUZ. Radiofizika, v. 8, no. 3, 1965, 461-468

TOPIC TAGS: plasma physics, scattering cross section, electromagnetic wave scattering

ABSTRACT: The scattering of waves in a plasma has been attracting increasing attention. It is possible to express the scattering cross section by means of a nonlinear equation describing the time variation of the spectral density of the square of the electromagnetic field fluctuations in the plasma. Using nonlinear integral equations describing the interaction of electromagnetic waves in a plasma, the authors have found the scattering cross sections of Langmuir and transverse waves with frequencies close to the Langmuir electron frequency. It is noted that the scattering of waves in a plasma can also be studied by means of a procedure developed by Gaylitis and Tsytovich (in publication) applicable to the problem of genera-

Card 1/2

L 63114-65

ACCESSION NR: AP5020358

tion of non-polarized radiation when charged particles are scattered by longitudinal waves in an isotropic plasma. Orig. art. has: 29 formulas.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR (Physics Institute, AN SSSR)

SUBMITTED: 12Sep64 ENCL: 00 SUB CODE: EM, ME

NO REF SOV: 009 OTHER: 001

Card 2/2

L 4970-66 EWT(1)/ETC/EPF(n)-2/EWG(m)/EPA(w)-2 IJP(c) GG/AT

ACC NR: AP5026703 SOURCE CODE: UR/0141/65/008/005/0886/0892

AUTHOR: Kropotkin, A. P.; Pustovalov, V. V.

ORG: Physics Institute im. P. N. Lebedev, AN SSSR (Fizicheskiy institut AN SSSR)

TITLE: Coalescence of electromagnetic waves in a cold magnetoactive plasma

SOURCE: IVUZ. Radiofizika, v. 8, no. 5, 1965, 886-892

TOPIC TAGS: plasma, multicomponent plasma, plasma interaction, Raman scattering, laser

ABSTRACT: The article deals with decay interaction of two waves in a plasma situated in a magnetic field. One wave is transverse and its frequency is much higher than the electron gyrofrequency. The other wave has arbitrary frequency. A situation of this kind arises in Raman scattering of a laser beam by the natural oscillations of a cold magnetoactive plasma. The wave vectors of the interacting waves have arbitrary orientation relative to the magnetic field. The nonlinear interaction between the waves is expressed in terms of an integro-differential equation whose solutions can have an arbitrary time dependence and are not limited to short time intervals. By way of a particular example, the authors consider in detail the coalescence of the high-frequency transverse wave with an arbitrary

Card 1/2 UDC: 533.951 0901 1213

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L 4970-66
ACC NR: AP5026703

wave in the plasma to form a third wave. The relations between the frequencies and the energies of the different waves are evaluated under several assumptions regarding the relations between the longitudinal, transverse, and Langmuir frequencies of the ions and electrons in the plasma. The authors thank V. P. Silin [02] for direction and support of the work. Orig. art. has: 25 formulas.

SUB CODE: ME,EM,EC/ SUBM DATE: 13Mar65/ ORIG REF: 008/ ATD PRESS: 4138

EC

Card 2/2

KROPOTKIN, A.P.; PUSTOVALOV, V.V.

Induced Raman scattering of longitudinal waves in a magneto-active plasma. Zhur.eksp.i teor.fiz. 49 no.4:1345-1361 O '65.
(MIRA 18:11)

1. Fizicheskiy institut imeni Lebedeva AN SSSR.

GORBUNOV, L.M.; PUSTOVALOV, V.V.; SILIN, V.P.

Nonlinear interaction of electromagnetic waves in a plasma. Zhur. eksp. i teor. fiz. 47 no.4:1437-1453 O '64.
(MIRA 18:1)

1. Fizicheksiy institut imeni P.N. Lebedeva AN SSSR.

L 08178-67 EWT(1)
ACC NR: AP6024895 SOURCE CODE: UR/0056/66/051/001/0345/0360

30
27
B

AUTHOR: Pustovalov, V. V.; Simonov, Yu. A.

ORG: none

TITLE: Complete system of angle functions in the three-body problem for an arbitrary orbital angular momentum

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 51, no. 1, 1966, 345-360

TOPIC TAGS: wave function, group theory, eigenfunction, quantum theory, three body problem, Schrodinger equation

ABSTRACT: This is a continuation of earlier work by one of the authors (Simonov, YaF v. 3, 630, 1966), and leads to the development of a method for obtaining a complete system of independent wave functions in coordinate space, which constitute an irreducible representation of the rotation group in three dimensions and an irreducible representation of the permutation group of three particles, for arbitrary total angular momentum. The functions obtained are eigenfunctions of the total orbital angular momentum of the system (L) and its projection M on the z axis. The degree of polynomials K is the eigenvalue of the square of the global momentum in six-dimensional space. The expression for the polynomials with arbitrary L is written out explicitly, and takes on a very simple form for L = 1 and 2. The polynomials obtained constitute a convenient basis for the expansion of the wave functions of three nucleons. The symmetry properties are taken into account in very simple fashion and the Schrodinger equation

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L 08178-67

ACC NR: AP6024895 3

with spin and isospin taken into account goes over into a system of equations for the partial waves. It is possible to take into account in this manner the contribution of D waves to the wave functions of T and He^3, as well as higher partial waves in the problem for the continuum of three nucleons. In addition, the resultant functions constitute a basis for expansion of the amplitude of the decay of a particle of arbitrary spin into three particles. The authors thank A. M. Badalyan, Yu. A. Danilov, and Ya. A. Smorodinskiy for numerous discussions. Orig. art. has: 87 formulas.

SUB CODE: 20/ SUBM DATE: 19Feb66/ ORIG REF: 003/ OTH REF: 009

Card 2/2 nst

L 27868-66 EWT(1)/ETC/EPF(n)-2/EWG(m) IJP(c) AT

ACC NR: AP5026628 SOURCE CODE: UR/0056/65/049/004/1345/1361

AUTHOR: Kropotkin, A. P.; Pustovalov, V. V. 12 B

ORG: Physics Institute im. P. N. Lebedev, Academy of Sciences SSSR (Fizicheskiy institut Akademii nauk SSSR)

TITLE: Stimulated Raman scattering of longitudinal waves in a magnetoactive plasma 21,44,55

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 4, 1965, 1345-1361

TOPIC TAGS: Raman scattering, plasma, nonlinear optics

ABSTRACT: Stimulated Raman scattering of longitudinal waves (i.e., waves with an index of refraction n >> 1) in an unbound homogeneous plasma in a constant homogeneous magnetic field is analyzed using the nonlinear equation for the evolution of field fluctuations in a magnetoactive plasma. Expressions are obtained for the kernels of equations describing such a decay in an isothermal plasma consisting of electrons and one type of ions. The nonlinear interaction of electromagnetic waves in a magnetoactive plasma can, in most cases, be represented by a characteristic time, the expressions for which are derived for a few special cases such as interaction of three long-wavelength electron cyclotron oscillations and decay of three short-wavelength electron cyclotron oscillations. Orig. art. has: 79 formulas. [CS]

SUB CODE: OP/ SUBM DATE: 26May65/ ORIG REF: 020/ OTH REF: 004/ ATD PRESS: 4151

Card 1/1 UDC

L 27471-66 EWT(d)/EWT(l)/EWP(v)/EWP(k)/EWP(h)/EWP(l)/ETC(m)-6 WW

ACC NR: AP6007850 SOURCE CODE: UR/0120/66/000/001/0228/0229

AUTHORS: Zinov'yev, M. V.; Il'ichev, V. Ya.; Kucheryavyy, V. A.; Pustovalov, V. V. 48 B

ORG: Physicotechnical Institute of Low Temperatures AN UkrSSR, Khar'kov (Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR)

TITLE: Low temperature attachment for standard testing machines 14

SOURCE: Pribory i tekhnika eksperimenta, no. 1, 1966, 228-229

TOPIC TAGS: metallurgic testing machine, low temperature research

ABSTRACT: The authors describe the construction of a low temperature attachment for standard materials testing machines, intended for deformation of metals and nonmetals at temperatures down to 4.2K. Special features of the attachment (Fig. 1) are a multi-position clamp to test flat or round metallic and nonmetallic samples, and a cryostat in which the cooling liquid can be stored either in a metallic or a glass Dewar vessel. The multi-position clamp makes it possible to automatically insert the next successive sample for testing during the idle stroke of the testing machine. The authors thank V. I. Startsov for interest in the work. Orig. art. has: 2 figures.

SUB CODE: 13, 14/ SUBM DATE: 16Dec64/ ORIG REF: 001/ OTH REF: 001

Card 1/2 UDC: 536.483:620.1.05

L 27471-66
ACC NR: AP6007850

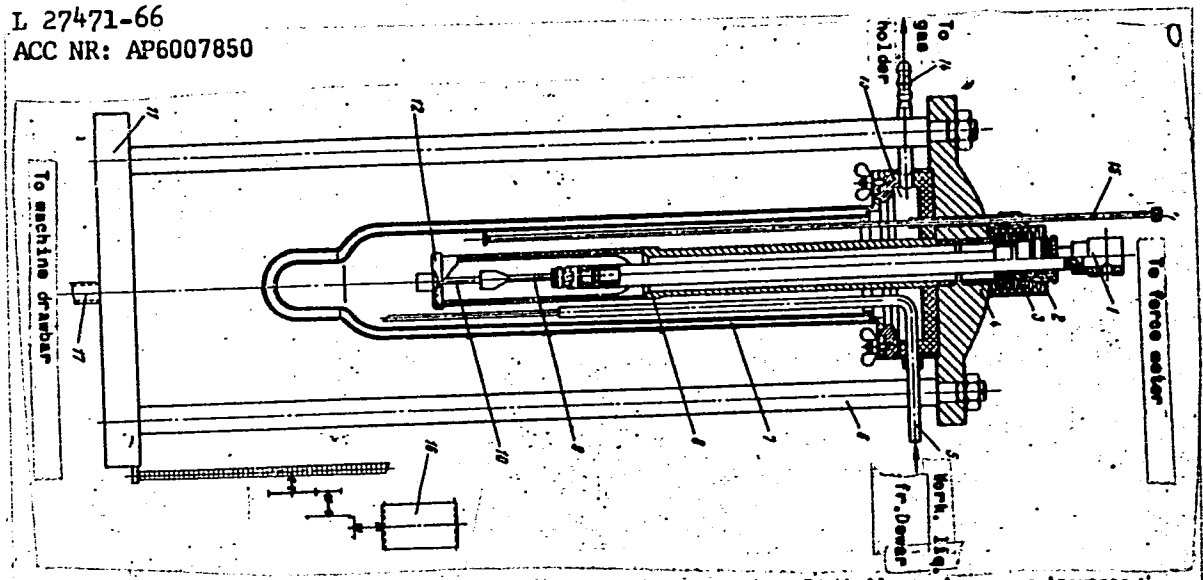


Fig. 1. Diagram of low-temperature attachment. 1 - Rod, 2 - packing, 3 - bellows, 4 - upper traverse, 5 - liquid from Dewar, 6 - pull rod, 7 - Dewar, 8 - tube, 9 - clamp, 10 - sample, 11 - lower traverse, 12 - support, 13 - vacuum chamber, 14 - transfer valve, 15 - elec. level meter, 16 - recording unit.

Card 2/2 BLG

PROKHVATILOV, A.I.; PUSTOVALOV, V.V.; SIL'VESTROVA, T.V.; STARTSEV, V.I.

Temperature dependence of the hardness of crystalline ammonia.
Ukr.fiz.zhur. 10 no.10:1127-1132 O '65.
(MIRA 19:1)

1. Fiziko-tekhnicheskiy institut nizkikh temperatur AN UkrSSR, Khar'kov. Submitted December 15, 1964.

PUSTOVALOV-Y-L

5447. Qualitative analysis of higher fatty acids by one-dimensional paper chromatography. Y. L. Pustovalov *Biokhimiya*, 1955, 20, 730—733 (Dept. Biochem. Rostov-on-Don State Med. Inst., U.S.S.R.).—A method involving the use of filter paper impregnated with rubber and naphthalene is described (0·4% rubber and 6% naphthalene in benzene). The chromatograms were developed with 90, 85, 80 and 75% aq. methanol, the stronger alcohol soln. being used for the higher acids. The acids were detected with 0·3% soln. of Bromothymol Blue in 50% aq. ethanol. The separation was satisfactory although the R_F values of the components of mixtures were not identical with those of individual acids. (Russian)

A. K. GRZYBOWSKI.

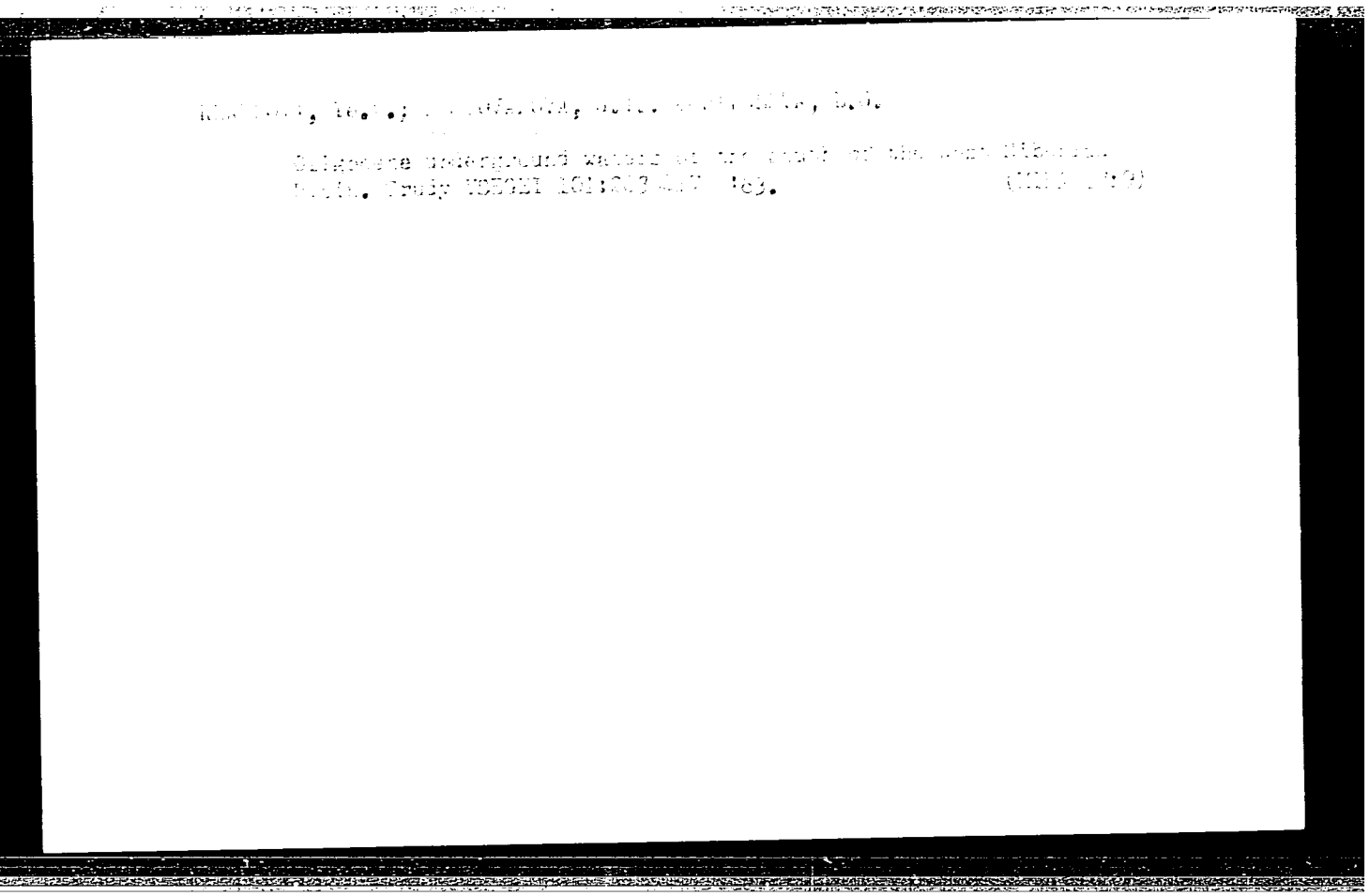
ASTAKHOV, I.G.; KRUPIN, A.V.; FEDOSOV, N.M.; SHILKOV, V.B.; PUSTOVALOV, Yu.V.; KONTSEVAYA, Ye.M.

Specific pressure in the cold rolling of the EI602 alloy and the EI962 steel. Izv. vys. ucheb. zav.; chern. met. 6 no.5:129-135 '63. (MIRA 16:7)

1. Moskovskiy institut stali i splavov.
(Rolling (Metalwork)) (Pressure)

UCHITELEVA, L.G.; PUSTOVALOVA, G.I.

Some data on the underground waters of Eocene sediments in the southern trans-Ural region. Inform.sbor.VSEGEI no.53:59-70 '62.
(MIRA 17:1)



CHEKUNOV, A.V.; PUSTOVALOVA, G.M.

Use of precritical reflections in hodographic-seismic sounding on the southern slope of the Ukrainian Shield. Izv. AN SSSR. Ser. geofiz. no.2:196-205 F '64. (MIRA 17:3)

1. Institut geofiziki AN UkrSSR.

ACCESSION NR: AP4023373 S/0049/64/000/002/0196/0205

AUTHORS: Chekunov, A. V.; Pustovalova, G. M.

TITLE: The use of subcritical reflections during deep seismic sounding on the southern slope of the Ukrainian shield

SOURCE: AN SSSR. Izv. Seriya geofizicheskaya, no. 2, 1964, 196-205

TOPIC TAGS: deep seismic sounding, seismic wave, reflected wave, subcritical reflection, magnetic anomaly, gravity high, Conrad discontinuity, Mohorovicic discontinuity, mantle

ABSTRACT: Statistical treatment of many records of deep subcritical reflections, obtained from standard low-frequency instruments without any special techniques of detection, has led to recognition of a distributional pattern of velocities in the earth's crust and to an explanation of structural peculiarities of the crust. This approach has permitted correlation of deep subcritical reflections where visual studies were impossible. It is shown that these reflections represent a wave group. Data on wave velocities, obtained by statistical treatment of

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ACCESSION NR: AP4023373

travel-time curves for these subcritical reflections, indicate that the "crystalline" crust is patently a layered, inhomogeneous medium, in which jumps in velocity occur at interfaces between layers, and in which the velocity occur at interfaces between layers, and in which the velocity increases gradually with depth within the individual layers. The depth to the Conrad discontinuity has been determined to be about 18 km by means of subcritical reflections. The total thickness of the earth's crust to the Mohorovicic discontinuity is about 35 km. Structural studies by these reflections indicate an upward bulge in the Conrad and neighboring discontinuities in the vicinity of the Belozerka-Veseloye magnetic anomaly and of the corresponding gravity high. "The authors thank V. B. Sollogub and I. P. Kosminskaya for valuable advice in treating the material." Orig. art. has: 7 figures.

ASSOCIATION: Akademiya nauk USSR Institut geofiziki (Academy of Sciences UkrSSR Institute of Geophysics)

SUBMITTED: 18Mar63 DATE ACQ: 27Mar64 ENCL: 00

SUB CODE: AS NO REF SOV: 009 OTHER: 010

Card 2/2

PUSTOVALOVA, L.B.

Importance of magnesium in the pathogenesis of rickets. Nauch. trudy Kaz. gos. med. inst. 14:523-524 '64. (MIRA 18:9)

1. Kafedra fakul'tetskoy pediatrii (zav. - prof. K.A.Svyatkina) Kazanskogo meditsinskogo instituta.

[illegible]

[illegible] study of antigens of the liquid portion of [illegible] vaccine. [illegible] mikrobiol., epid. i immun. 40 no.11:136-139 N '63. (MIRA 17:6)

1. Iz Rostovskogo-na-Donu meditsinskogo instituta.

PUSTOVALOVA, L.M.

Amino acid composition of Vibrio comma and Vibrio comma-like bacilli. Vop. med. khim. 7 no.3:265-270 My-Je '61. (MIRA 15:3)

1. Chair of Biochemistry, the Rostov-on-Don Medical Institute.

(VIBRIO) (AMINO ACIDS)

GUBAREV, Ye.M., PUSTOVALOVA, L.M.

Investigating high-molecular fatty acids obtained from the lipids of Corynebacterium diphtheriae [with summary in English]. Ukr.biokhim. zhur. 30 no.4:569-584 '58 (MIRA 11:9)

1. Kafedra biokhimii Rostovskogo-na-Donu gosudarstvennogo instituta.
(CORYNEBACTERIUM DIPHTHERIAE)
(ACIDS, FATTY)

PUSTOVALOVA, L.M.

Amino acid composition of Vibrio comma. Ukr.biokhim.zhur. 31 no.5: 684-690 '59. (MIRA 13:4)

1. Department of Biochemistry of Rostov-na-Donu Medical Institute.
(VIBRIO COMMA) (AMINO ACIDS)

PUSTOVALOVA, L.M.

Isolation of diaminopimelic acid from Vibrio comma. Vop. med. khim. 6 no.3:284-287 My-Je '60. (MIRA 14:3)

1. Kafedra biokhimii Rostovskogo-na-Donu meditsinskogo instituta.
(VIBRIO COMMA) (DIAMINOPIMELIC ACID)

PUSTOVALOVA, L. M. (USSR)

"Antigenic Composition and Clinical Properties of Substances from Cholera Vaccine Filtrate."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

PUSTOVALOVA, N.A.; VERESHCHAGIN, I.A.; POLYAKOVA, L.K.

Study of the resistance of dysentery bacteria to antibiotics and the concentration of monomycin in the blood of children with acute intestinal infections. Antibiotiki 8 no.3:279-283 Mr'63 (MIRA 17:4)

1. Otdel detskikh infektsiy (nauchnyy rukovoditel' - prof. A.L. Libov) Nauchno-issledovatel'skogo instituta antibiotikov i Detskaya infektsionnaya bol'nitsa Leninskogo rayona Leningrada (glavnyy vrach K.A. Dudkina).

KRISHTALEVICH, A.N.; PUSTOVALOVA, T.A.

Works to insure the uniformity of audiometric measurements. Trudy inst. Kom. stand., mer. i izm. prib. no.73:5-12 '63. (MIRA 17:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D.I. Mendeleyeva.

ACC NR: AT6033297 (N) SOURCE CODE: UR/3230/64/000/001/0177/0181

AUTHOR: Pustovalova, T. V.

ORG: none

TITLE: The height of waves in the Kursk Bay

SOURCE: Vilnius. Gidrometeorologicheskaya observatoriya. Trudy, no. 1, 1964, 177-181

TOPIC TAGS: hydrographic surveying, wind velocity, wind measurement

ABSTRACT: Primarily wind waves develop in the shallow water of the Kursk Bay (greatest depth, about 6 m; average depth, 2.7 m). With the intensification of the winds, waves, whose height reaches a maximum within several hours, develop rapidly. The waves decay even more rapidly with the abatement or disappearance of the winds. The waves are short, but relatively high: in the central and southern parts of the bay their height often exceeds 2 m, and their steepness varies between 1:9 and 1:19. Wave observations were carried out at six points, four of which were visual. Semi-instrumental observations were conducted from the shore in the region of Nidy, and pile-gage measurements were made in the open part of the bay. The recorded data were analyzed by a method used previously by N. D. Shiskov for various regions of the Baltic Sea ("Meteorologiya i gidrologiya", No. 1, 1949; No. 3, 1947; No. 10, 1952). All observations were categorized into four groups depending on the distance traversed by the waves between the pile-gage posts and the shore. For each group graphs

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ACC NR: AT6033297

were constructed showing the wave height as a function of wind velocity. The dependence was found to be linear for wind velocity of 3 m/sec and over. For smaller wind velocities no noticeable waves developed and the dependence was nonlinear. A comparison of the graphs show that for the same wind directions and velocities, the waves were higher in the open part of the bay than at the shore. This is attributed to the effect of the shore and to the difference in the measuring methods used. Orig. art. has: 3 figures and 3 tables.

SUB CODE: 08/ SUBM DATE: none

Card 2/2

L 11445-67 EWT(1) GW/JXT(CZ)
ACC NR: AT6033298 (N) SOURCE CODE: UR/3230/64/000/001/0182/0187

15

AUTHOR: Pustovalova, T. V.

ORG: none

TITLE: Study of ice conditions in the Kursk Bay

SOURCE: Vilnius. Gidrometeorologicheskaya observatoriya. Trudy, no. 1, 1964, 182-187

TOPIC TAGS: ice, sea ice, synoptic meteorology

ABSTRACT: Observations of ice conditions in the Kursk Bay are presently carried out at six points. In particular, the state of the ice cover, the ice forms, and the ice drift are investigated. Sketches of the ice situation are made daily. Fully reliable data are obtained only on the ice thickness, the width of the shore ice, and the ice drift. Ice conditions in the bay are shown to be characterized by great instability. They are determined chiefly by the type of synoptic processes being developed. The first ice appears at the end of November or the beginning of December. The average date on which the first ice appears falls on December 3, the early date on October 31, and the late date on January 31. The average freezing period is 80 days, in very severe winters, 3.5 to 4 months, and in mild winters, about a month. The ice is usually hummocky, especially in the southern part of the bay. The height of the hummocks reaches 2 m at Nidy, and 7—14 m in the regions of Otkrytoye. Very often cracks appear in the ice. The ice thickness and its growth depend on the severity of

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the winter. The maximum ice thickness was measured in the winter of 1939. According to data obtained in 1960, the ice thickness was about 60 cm in the southern and central parts of the bay, and about 22—27 cm in the region of Yuodkrante. The breaking up of ice usually starts in March. The break up begins at first at river mouths, spreads toward the northern regions and finally reaches southern parts. The final clearing of the bay depends on the wind situation and the nature of the spring. Usually at the end of March the bay is completely cleared of ice. The average duration of the ice period, according to data obtained in the last 11 years, is 125 days, the shortest, 82 days, and the longest, 135 days. Orig. art. has: 3 figures and 12 tables.

SUB CODE: 08/ SUBM DATE: none/ ORIG REF: 009/ OTH REF: 003

Card 2/2 lm

KOBYL'SKAYA, M.V.; KORNILOV, M.F.; SEMENOV, S.S.; PYSHKINA, N.I.; PUSTOVALOVA, Ye.K.; KUZNETSOVA, O.A.; Prinimali uchastiye: KSENOFONTOVA, tekhnik; AYZENBERG, Z.M., tekhnik; LOBANOVA, E.M., tekhnik

Using acid asphalt for the preparation of superphosphate phosphorous fertilizer. Trudy VNIIT no.12:119-129 '63. (MIRA 18:11)

PUSTOVALOV, Ye.V.

In the All-Union Scientific Research Institute of Transportation Construction. Transp.stroi. 6:28-29 Je '56. (MIRA 9:9)

1.Uchenyy sekretar' Vsesoyuznogo nauchno-issledovatel'skogo instituta transportnogo stroitel'stva.
(Construction industry)

SOV/136-58-10-10/27

AUTHORS: Zavaritskaya, T.A. and Pustovalova, S.S.

TITLE: Composition and Properties of Titanium Tetrachloride Hydrolysis Products Dissolved in Titanium Tetrachloride (Sostav i svoystva rastvorennykh v chetyrekhkhloristom titane produktov yego gidroliza)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 10, pp 50 - 53 (USSR)

ABSTRACT: The object of the work described was to study the contamination of titanium tetrachloride by its hydrolysis products under industrial conditions. Compounds extracted from various samples or prepared artificially were used. From analyses and molecular-weight determinations, the material obtained by vacuum distillation corresponded to $TiOCl_2$. It was found (Figure 1) that titanium oxychloride decomposes at comparatively low temperatures, (80-100 °C). Its solubility in the tetrachloride was determined at 25 - 135 °C and supersaturation was detected. A special apparatus (Figure 3) was used to determine the boiling point of the saturated solution and the results are compared (Figure 4) with those given by N.K. Druzhinina for the vapour pressure of the pure tetrachloride - there is very little difference between the curves.

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SOV/136-58-10-10/27

Composition and Properties of Titanium Tetrachloride Hydrolysis Products Dissolved in Titanium Tetrachloride

The investigation has shown by comparative distillation and rectification tests at different pressures that the present practice of purifying the titanium tetrachloride used in the magnesium-thermic process should be replaced by vacuum distillation. The authors conclude that the main cause of hydrolysis-product contamination is contact with moist air. An editorial note states that the investigation should be continued with a wider temperature range. There are 4 figures and 1 English reference.

ASSOCIATION: VAMI

Card 2/2

PUSTOVALOVA, T.A.

Alcoholic neuritis. Med.zhur.Uzb. no.10:16-17 O '58.
(MIRA 13:6)

1. Iz kliniki nervnykh bolezney (zav. - prof. L.Ya. Shargorodskiy) Tashkentskogo gosudarstvennogo meditsinskogo instituta.
(NEURITIS) (ALCOHOLISM)

PUSTOVALOVA, T.A. (Tashkent)

Paragonimiasis of the brain. Klin.med. 37 no.9:73-76 S '59.
(MIRA 12:12)

1. Iz kliniki nervnykh bolezney (dir. - zasluzhennyy deyatel' nauki Uzbekskoy SSR prof. L.Ya. Shargorodskiy) Tashkentskogo meditsinskogo instituta i gospitalya Sovetskogo Krasnogo Kresta i Krasnogo Polumesyatsa v Pkhen'yane.
(PARAGONIMUS, infection)
(BRAIN, diseases)

KOBYL'SKAYA, M.V., PUSTOVALOVA, Ye.K.

Rapid method of determining carbon in the solid residues from the thermal treatment of oil shales. Trudy VNIIT no.9:167-172 '60.
(MIRA 13:11)

(Carbon—Analysis) (Oil shales)

PUSTOVAR, I.P.

Maintaining the tracks in an electrified section. Put' i put. khoz. 9 no.1s8-11 '65 (MIRA 18:2)

1. Nachal'nik Znamenskoy distantsii puti Odessko-Kishinevskoy dorogi.

PUSTOVAR, Ya. P.

"The Studies of I. I. Mechnikov on the Protective Properties of Organisms," Veterinariya, No. 1, 1950. Docent, Cand. Veterinarn Sce., Khar'kov Vetarinarn Inst., -c1950-.

PUSTOVAR, Ya. P., Lecturer,
Khar'kov Veterinary Institute
"Let's do away with the underestimation of veterinaro-sectional work."
SO: Vet. 28 (9), 1951, p. 52

NOSIK, A.F., dotsent; PUSTOVAR, Ya.P., dotsent.

Reactivity of a host's organism and modifications of hydatid cysts. Sbor.trud.Khar'.vet.inst. 21:287-303 '52. (MLRA 9:12)
(Hydatids)

PUSTOVAR, Ya.P., dotsent; TSYMBAL, T.G., dotsent.

Chancroid of the orbit in a cow. Sbor.trud.Khar'.vet.inst. 21: 398-405 '52. (MLRA 9:12)

1. Kafedry patanatomii i anatomii Khar'kovskogo veterinarnogo instituta.

(Chancroid) (Eye--Cancer) (Cow diseases)

PUSTOVAR, Ya. P.

USSR/Medicine - Veterinary, Atrophic Rhinitis

Card 1/1

Author : Pashov, T. V., Pustovar, Ya. P., and Nani, S. P.

Title : Chronic atrophic rhinitis in pigs, and preventive measures

Periodical : Veterinariya, 31, 34-40, Apr 1954

Abstract : Manifestation and extent of prevalence of chronic atrophic rhinitis in pigs is directly connected with nutrition, maintenance, and sanitation. Exercise of rigid precaution in known cases of the disease is requisite. It has not yet been determined what specific organism causes chronic atrophic rhinitis; further experimental research is required to clarify the role that Bacillus pyocyaneus plays in the morbid process. Sinusitis, bronchopneumonia, otitis, and meningo-encephalitis are some of the complications that may be present in pigs affected with this disease. Illustrations.

Institution : Poltava Inter-Sovkhoz Veterinary Bacteriological Laboratory

Submitted :

PUSTOVAR, Ya.P., dotsent; ZIMOGLYAD, N.A., dotsent.

Atonia of the proventriculi in cattle caused by sarcomatosis.
Veterinariia 34 no.1:60-62 Ja '57. (MLRA 10:2)

1. Khar'kovskiy veterinarnyy institut.
(Stomach--Diseases) (Tumors) (Veterinary medicine)

USSR/General Problems of Pathology - Tumors. Comparative Oncelogy. Tumors of Animals. U

Abs Jour : Ref Zhur Biol., No 5, 1959, 22822

Author : Pustovar, Ya.P; Shalduga, N.Ye., Korzh, P.M.

Title : Carcinoma of the Organs of Occular Orbit in Cows.

Orig Pub : Veterinariya, 1958, No 4, 57-62

Abstract : 24 cases of carcinoma of the occular orbit in cows (in 17, of the left eye) are described. The tumors started more frequently from the 3rd or the lower eyelid. If the tumor encompassed only the 3rd eyelid, or the lower or the 3rd, or the eyeball, then surgical intervention led to cure in 100% of cases. If the tumor spread to the lower or upper eyelid, retrobulbar tissues or soft tissues of the orbit, then, after surgery, recurrence took place in all cases, which led to enforced slaughter of the cows. -- A.M. Lunts

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PUSTOVAR, Ya.P., dots.; SHALDUGA, N.Ye., dots.; KORZH, P.M., vetvrach.

Cancer of the eye region in cows. Veterinariia 35 no.4:57-62 Ap '58. (MIRA 11:3)

1. Khar'kovskiy veterinarnyy institut.
(Eye--Cancer) (Cows--Diseases and pests)

OSTASHEVSKIY, Aleksandr Grigor'yevich [Ostashevs'kyi, O.H.], dots.; PUSTOVAR, Yakov Pavlovich, dots.; SMIRNOV, O.V., red.; YEROSHENKO, T.G. [IEroshenko, T.H.], tekhn. red.

[Principles of veterinary and sanitary expertise] Osnovy veterynarno-sanitarnoi ekspertysy. Kyiv, Derzhsil'hospvydav URSR, 1961. 175 p. (MIRA 15:7)

(Veterinary hygiene) (Meat inspection)
(Dairying--Hygienic aspects)

PUSTOVAROV, V.A.

Anesthesia for injections. Fel'd. i akush. 23 no.3:49 Mr '58.
(MIRA 11:4)

1. Esmanskaya rayonnaya bol'nitsa Sumskoy oblasti.
(LOCAL ANESTHESIA) (INJECTIONS)

PUSTOVAROVA, N. P. Cand Tech Sci -- "Study of the effect of plastic deformations upon the secondary phenomena occurring in friction of metals." Kiev, 1961 (Min of Higher and Secondary Specialized Education UkSSR. Kiev Order of Lenin Polytechnic Inst). (KL, 4-61, 200)

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D207/D303

26.2182

AUTHORS: Kostetskiy, B. I. and Pustovarova, N. F.

TITLE: Plastic deformation and secondary phenomena at contacts of rubbing metals

SOURCE: Soveshchabiye po voprosam teorii sukhogo treniya i obrazovaniya chastits iznosa pri sukhom trenii. Riga. 1959, 81-96

TEXT: The authors studied the effect of plastic deformation during dry or lubricated friction on diffusion and chemical reactions in metal surfaces. The purpose of the study was to obtain information on processes occurring in friction of machine parts. For work on the plastic deformation itself the authors refer to investigations of groups of Soviet scientists working under P. A. Rebinder, V. D. Kusnetsov, K. V. Savistskiy and S. B. Aynbinder. Optical and electron microscopes were employed, X-ray diffraction and spectral analyses were carried out, microhardness was measured, and radioactive tracers were used to study diffusion. Tests were

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